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Planes
you will see at
Logan

As you tour Boston-Logan International Airport, one of the striking features of the aviation industry you will notice is the number of different types of airplanes parked about the terminal buildings.

Each plane was designed and built for a particular need of the airlines and the traveling public. Factors affecting the size and construction of the aircraft are different seating capacity, flight range, cargo capacity and speed.

Although it would be impossible to describe each and every type of airplane using Logan, the world's eighth busiest airport, the characteristics of the planes in commercial use are covered in the following pages.

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The largest passenger capacity jet airliner in commercial service today is the 747. Built by the Boeing Company, the huge craft is powered by four Pratt and Whitney turbofan jet engines. Designed for maximum seating and cargo capacity, the first of the wide-bodied, jumbo-jets also features the ultimate in passenger comfort and convenience, including a second level lounge. The plane seats up to 490 passengers and can carry over 130 tons of cargo at a speed of about 625 miles per hour.

Other characteristics are:

Overall length	231.3 feet
Overall height	63.4 feet
Wing span	195.7 feet
Range	6000 miles

Boeing 747 – The first of the new generation of quieter aircraft

Prior to production of the jumbo 747, the 707 was the largest plane manufactured by the Boeing Company for commercial use. The creation of the 707 ushered in the "jet age" in travel. Transcontinental air travel was revolutionized by this, America's first jet airliner. Four Pratt and Whitney turbofan engines carry up to 199 passengers or 47 tons of cargo at a speed in excess of 600 miles per hour.

Other characteristics are:

Overall length	152.9 feet
Overall height	42.5 feet
Wing span	145.7 feet
Range	6000 miles

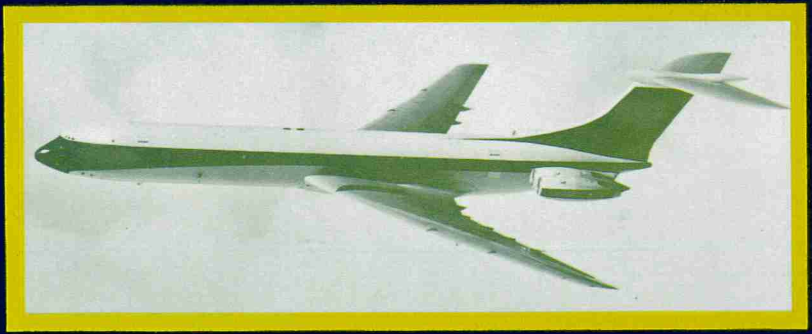
Boeing 707

One of the more striking aircraft seen at Logan is the VC-10. Manufactured in England by Vickers, the liner has four Rolls Royce engines. With the unique engine mountings this craft is easily recognized. Two engines, side by side, are mounted on each side of the tail section, below a towering 'T' tail. Cruising speed is 600 miles per hour and the plane carries 140 passengers. The luxury liner is rarely used for cargo.

Other characteristics are:

Overall length	171.0 feet
Overall height	42 feet
Wing span	146.0 feet
Range	4000 miles

VC-10



The DC-9, manufactured by the McDonnell-Douglas Corporation, is specifically designed for short range flights. It features two Pratt and Whitney turbofan engines mounted on the sides of the rear of the body of the craft. Its narrow body is one of the distinguishing features, making it appear longer than it actually is. Seating 115 passengers, the DC-9 cruises at 550 miles per hour and can carry seven tons of air cargo.

Other characteristics are:

Overall length	104.4 feet
Overall length	119.3 feet
Wing span	93.4 feet
Range	920 miles

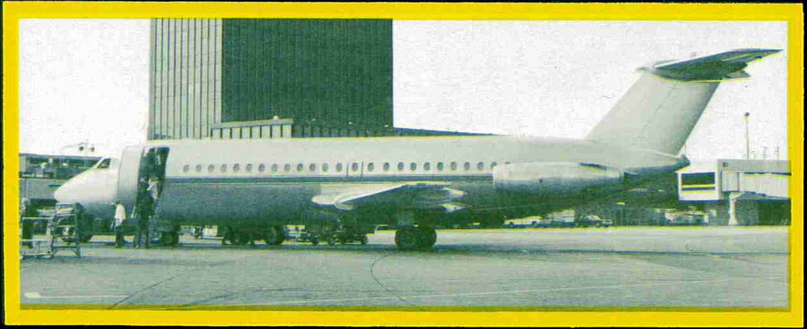
DC-9

The most extensively used foreign-built aircraft in service at Boston-Logan International Airport is the BAC-111. Manufactured in England by the British Aircraft Corporation, the plane is powered by two Rolls Royce turbofan engines mounted on the rear of the fuselage. Seating 69 passengers, it is one of the smallest jet liners in commercial use. The plane carries 7000 pounds of cargo and cruises at 550 miles per hour.

Other characteristics are:

Overall length	93.5 feet
Overall height	23.7 feet
Wing span	88.5 feet
Range	1000 miles

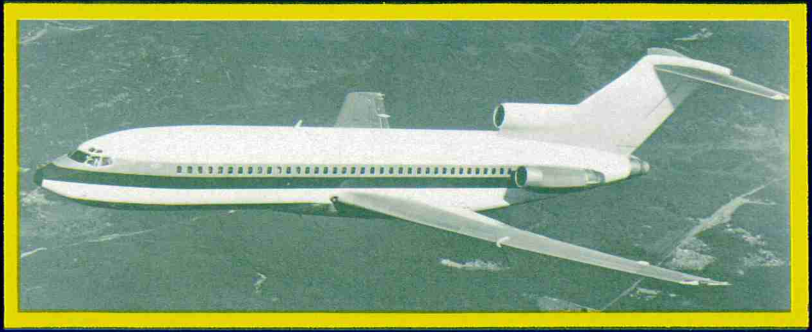
BAC-111



Designed to bring jet speed, comfort and reliability to short and medium range flights, the Boeing 727 is one of three American-made three engine aircraft operated commercially. The 727 is the most widely sold jet in the world. The craft can be distinguished from other Boeing planes by its three engines grouped around a ‘T’ shaped tail. It seats up to 189 passengers or can carry up to 22 tons of cargo. Maximum speed is 600 miles per hour.

Other characteristics are:

Overall length	153.2 feet
Overall height	34.0 feet
Wing span	108.0 feet
Range	3000 miles



Boeing 727

The smallest member of the Boeing family of jetliners is the 737. It is the first twinjet built with the engines mounted under the wing. The craft was designed for short range flights. The body of this plane is the same width as the 707, offering short hop passengers the same comfort and convenience available in Boeing's larger jets. It carries 119 passengers at a speed of 580 miles per hour.

Other characteristics are:

Overall length	100 feet
Overall height	37 feet
Wing span	93 feet
Range	2000 miles

Boeing 737

The commuter airlines or air taxis rely primarily on the DeHavilland Twin Otter (STOL – short take-off and landing). This plane is designed to land and take off from the shortest runways. Two Pratt and Whitney turboprop engines produce the power for this plane. It has a seating capacity of 19 or can carry three tons of cargo. The plane requires very little runway to take off and land, allowing it to service nearly all small as well as large airports.

Other characteristics are:

Overall length	51.7 feet
Overall height	18.5 feet
Wing span	65 feet
Range	1100 miles

DeHavilland Twin Otter (STOL)

One of the few propeller powered aircraft in service by major airlines in the United States today is the Electra. The majority of these are used in short-range air shuttle service or where airport limitations do not permit jet operations. Manufactured by the Lockheed Aircraft Corporation, the Electra is powered by four General Motors propjet engines. Seating 95 passengers, the plane cruises at 330 miles per hour.

Other characteristics are:

Overall length	104.5 feet
Overall height	32.7 feet
Wing span	99.0 feet
Range	2000 miles

Electra

One of the smaller airplanes in commercial use at Boston-Logan International Airport is the Viscount. Offering a seating capacity of 48, the plane is designed for short hops between smaller airports. It is powered by four Rolls Royce Dart propjet engines and cruises at a speed of 320 miles per hour. Like other propeller driven aircraft, it will soon be phased out of service.

Other characteristics are:

Overall length	82 feet
Overall height	26.7 feet
Wing span	93.7 feet
Range	1000 miles

Viscount

The first wide-bodied aircraft built by the McDonnell-Douglas Corporation is the quiet DC-10. The DC-10 features two aisles and eight across seating. It is powered by three General Electric turbofan engines, two wing mounted and the other tail mounted. The plane has been designed to offer jumbo jet luxury and convenience to world travelers. It seats 345 passengers and was first placed in commercial service in 1971.

Other characteristics are:

Overall length	181 feet
Overall height	59.6 feet
Wing span	161.3 feet
Range	6100 miles

DC-10 – High capacity, quiet "air bus"

A new addition to the jumbo jet field is the L-1011. The craft incorporates a new idea in engine locations, one aft mounted Rolls Royce turbofan engine and two others mounted under the wing. The plane, like the DC-10, has been designed to comply with the demand for less noise and smoke and improved all weather safety equipment. It carries 345 passengers at 600 miles per hour.

Other characteristics are:

Overall length	178.6 feet
Overall height	55.8 feet
Wing span	155.3 feet
Range	4000 miles

Lockheed L-1011– "Air bus" with reduced noise/air pollution.

Logan International Airport – Then and Now

It was the realization of the unlimited potential of powered flight which prompted Massachusetts officials to develop 189 acres of filled land in East Boston as a commercial flying field at the close of World War I. The same site was renamed Boston-Logan International Airport two decades later.

In the early years following the Wright Brothers' first successful powered flight on December 17, 1903, aviation in the Greater Boston area was an expensive novelty engaged in by only a few pioneer flyers, who often were dependent on graded pastures or open waterways for landing spots.

But, when World War I showed the world that powered flight was here to stay, officials of the Commonwealth of Massachusetts turned to 189 acres of tidal flats first acquired by the state in 1890. The land had originally been intended for expansion of industrial and waterfront facilities in Boston Harbor.

Before World War I, bulkheads had been built around these flats, and hydraulic dredging had started reclaiming the land from the sea. Development plans were shelved during the war, and were then changed to the airport plan after the war.

When the Commonwealth Airport-Boston was dedicated on September 8, 1923, there were only two runways, each 1,500 feet long and paved with cinders. The site was little more than open marshland with three or four corrugated hangars. Many of the planes did not even use the runways; they landed in the nearby waters of Boston Harbor.

Over the years, the old Commonwealth Airport expanded with developments in the infant aircraft industry. The first commercial flight out of the airfield was made on April 4, 1927, by Colonial Air Transport, a predecessor of American Airlines. Significantly, it was a Boston to New York run – now the busiest route in present-day commercial world aviation.

Before the end of the 1920s, Boston was linked to New York by regular air mail service and regular daytime and nighttime passenger flights. From 1928 to 1941, the City of Boston operated the airport. It was then operated successively by the Massachusetts Department of Public Works and the State Airport Management Board.

Over the years, the growth of aviation has seen unparalleled physical change at the old Commonwealth Airport. Various expansion and development plans were drawn up and approved, and construction undertaken. Within several decades, these plans proved inadequate for the burgeoning commercial flight industry, making it necessary to tear down and rebuild the area with bigger and more modern structures.

Runways were paved and extended as more land was filled in. Today, there are six runways at Logan, ranging in length from 1,800 feet (STOL Runway 18-36) to 10,002 feet (Runway 22L-4R). Plans for seaplane development at the airport took a long time to die; plans for a landing channel were included in airport development as late as the closing years of World War II.

On June 12, 1943, the Commonwealth Airport was renamed Logan International Airport after one of the state's most distinguished soldiers, Lt. General Edward Lawrence Logan, commander of the 26th (Yankee) Division in World War I.

Today, Boston-Logan International Airport bears no resemblance to the tiny East Boston flying field as it prepares for the space age 1970s. Since Massport took it over in 1959, about $350 million has been spent or is committed to be spent on improvements to the facility – all at no cost to the taxpayers of Boston or the Commonwealth. A five-level parking garage, North Terminal building, and Southwest terminal have been completed. The new International Terminal is due for completion in early 1974 and the new South Terminal scheduled for opening in about three years. The world's tallest control tower was completed and placed in operation in 1973.

Logan International Airport is one of the major stimulants to the economy of the New England area. The development of Logan to meet the future needs of the citizens and businesses of the region is of the utmost importance. Presently several major airfield improvement projects are underway while others are about to begin.

Massport Tour Program

The educational tour program at Boston-Logan International Airport is a major part of Massport's extensive community relations program. Thousands of children and adults are given an inside look at this phase of the transportation industry annually. Under the direction of Massport's thoroughly trained tour guides, organized groups are escorted through the world's eighth busiest airport. The tour guides explain the airline business and are available to answer any questions about the airport.

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